

A1 5/27/97
detecting the gas phase material from a change in conductivity between the first and second electrodes with the detector; and
generating an alert based on the detection of the gas phase material.

6.(Amended) A method of detecting a gas phase material comprising:
providing a sensor comprising first and second electrodes, a detection surface extending between the first electrode and the second electrode, and a detector operatively connected to the first and second electrodes, wherein the detection surface is not electrically conductive;
exposing the sensor to the gas phase material, wherein an electrically conductive film of the gas phase material forms on the detection surface between the first and second electrodes;
detecting electrical conductivity of the electrically conductive film between the first and second electrodes with the detector; and
generating an alert based on the detection of the electrical conductivity of the electrically conductive film.

10.(Amended) A method of detecting a gas phase material comprising:
providing a sensor comprising first and second electrodes, a detection surface extending between the first electrode and the second electrode, and a detector operatively connected to the first and second electrodes;
heating the detection surface above ambient temperature;
exposing the detection surface to the gas phase material, wherein an electrically conductive film of the gas phase material forms on the detection surface between the first and second electrodes;
detecting the gas phase material from a change in conductivity between the first and second electrodes with the detector; and
generating an alert based on the detection of the gas phase material.

12.(Amended) A sensor for detecting a gas phase material in an environment, the detector

Amendment and Response

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For: DETECTION OF GAS PHASE MATERIALS

Page 3 of 14

comprising:

first and second electrodes;

a detection surface extending between the first electrode and the second electrode; and

a detector operatively connected to the first and second electrodes, where the detector generates an alert when a film of the gas phase material in the environment forms on the detection surface.

17.(Amended) A sensor for detecting a gas phase material in an environment, the detector comprising:

first and second electrodes;

a detection surface extending between the first electrode and the second electrode;

a heater capable of providing thermal energy to the detection surface; and

a detector operatively connected to the first and second electrodes, where the detector generates an alert when a film of the gas phase material in the environment forms on the detection surface.
